

PATENT COOPERATION TREATY

TRANSLATION

From the
INTERNATIONAL SEARCHING AUTHORITY

PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

To:

Date of mailing
(day/month/year)

Applicant's or agent's file reference

GP04-1030PCT

FOR FURTHER ACTION

See paragraph 2 below

International application No.

PCT/JP2005/000527

International filing date (day/month/year)

18.01.2005

Priority date (day/month/year)

19.01.2004

International Patent Classification (IPC) or both national classification and IPC

Applicant

ORIENT CANCER THERAPY CO., LTD.

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☒ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/JP

Authorized officer

Facsimile No.

Telephone No.

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/JP2005/000527

Box No. I Basis of this opinion

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐

This opinion has been established on the basis of a translation from the original language into the following language

_____, which is the language of a translation furnished for the purposes of international search (under Rule 12.3 and 23.1(b)).

2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:

a. type of material

☐

a sequence listing

☐

table(s) related to the sequence listing

b. format of material

☐

in written format

☐

in computer readable form

c. time of filing/furnishing

☐

contained in the international application as filed.

☐

filed together with the international application in computer readable form.

☐

furnished subsequently to this Authority for the purposes of search.

3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table(s) relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

4. Additional comments:

WRITTEN OPINION OF THE
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International application No.

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Box No. III

Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

The questions whether the claimed invention appears to be novel, to involve an inventive step (to be non obvious), or to be industrially applicable have not been examined in respect of:

☐ the entire international application

☒ claims Nos. 6

because:

☒ the said international application, or the said claims Nos. 6
relate to the following subject matter which does not require an international preliminary examination (*specify*):

The subject matter of claim 6 relates to a method for treatment of the human body by therapy {PCT Rule 67.1(iv)}.

☐ the description, claims or drawings (*indicate particular elements below*) or said claims Nos. _____
are so unclear that no meaningful opinion could be formed (*specify*):

☐ the claims, or said claims Nos. _____ are so inadequately supported
by the description that no meaningful opinion could be formed.

☒ no international search report has been established for said claims Nos. 6

☐ the nucleotide and/or amino acid sequence listing does not comply with the standard provided for in Annex C of the Administrative Instructions in that:

the written form

☐ has not been furnished

☐ does not comply with the standard

the computer readable form

☐ has not been furnished

☐ does not comply with the standard

☐ the tables related to the nucleotide and/or amino acid sequence listing, if in computer readable form only, do not comply with the technical requirements provided for in Annex C-bis of the Administrative Instructions.

☐ See Supplemental Box for further details.

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.

PCT/JP2005/000527

Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)

Claims 1-5

YES

Claims

NO

Inventive step (IS)

Claims

YES

Claims 1-5

NO

Industrial applicability (IA)

Claims 1-5

YES

Claims

NO

2. Citations and explanations:

Documents cited in the ISR:

Document 1: JP, 2001-81047, A (YAGITA, Akikuni)

Document 2: Lesley J. Murray et al., SU11248 inhibits tumor growth and CSF-1R-dependent osteolysis in an experimental breast cancerbone metastasis model, *Clinical & Experimental Metastasis*, Vol. 20, pp. 757-766, 2003

Document 3: Hisanori Uehara et al., Effects of Blocking Platelet-Derived Growth Factor-Receptor Signaling in a Mouse Model of Experimental Prostate Cancer Bone Metastases, *Journal of the National Cancer Institute*, Vol. 95, No. 6, 2003

Document 4: Mary Ann C. Sabino et al., Simultaneous Reduction in Cancer Pain, Bone Destruction, and Tumor Growth by Selective Inhibition of Cyclooxygenase-2, *Cancer Research*, Vol. 62, pp. 7343-7349, 2002

Document 1 describes that an IL-12 production inducer being a substance having a $\beta 1, 3/1, 6$ glucan structure has an antitumor activity.

Document 2 describes that a combination of SU11248 being a tyrosine kinase inhibitor and bisphosphnate has an action to suppress displacement of cancer to bone.

Document 3 describes that ST1571 being a tyrosine kinase inhibitor has an action to suppress displacement of cancer to bone.

Document 4 describes that a Cox2 synthetic inhibitor suppresses osteoclast and growth of tumor in the displacement of cancer to bone.

Generally, in the field of anticancer agents, using a plurality of anticancer drugs based on the action mechanism is normally done, so that using in combination the drugs described in each of the documents 1-4 and thereby making ones described in claims 1-5 of the present international application is obvious to a person skilled in the art.

And, the effect cannot be regarded to be special.

Accordingly, claims 1-5 involve novelties but do not appear to be inventive on account of documents 1-4.

PATENT ABSTRACTS OF JAPAN

(11)Publication number : 2001-081047

(43)Date of publication of application : 27.03.2001

(51)Int.Cl. A61K 45/00
A61K 35/84
A61P 35/00
A61P 43/00

(21)Application number : 2000-240670 (71)Applicant : YAGITA KYOKUHO

(22)Date of filing : 11.11.1996 (72)Inventor : YAGITA KYOKUHO

(54) PREPARATION FOR ORAL ADMINISTRATION

(57)Abstract:

PROBLEM TO BE SOLVED: To obtain the subject preparation expected to have anticancer effects, having extremely high practicality, and useful for the therapy of progressive cancer and last stage cancer, and the improvement of quality of life by including a specific cytokine inducer.

SOLUTION: This preparation contains an interleukin 12 inducer. The inducer is preferably (A) a component derived from a mycelium of a mushroom. The inducer preferably contains further (B) the mycelium component of the mushroom, and (C) a microbial cell component of hemolytic streptococcus. The component A is a physiologically active substance obtained by treating the mycelium of the mushroom with an enzyme, and preferably contains a β 3-(1 \rightarrow 3)D-glucan, a β -(1 \rightarrow 6)D-glucan, a heteroglycan, a peptidoglycan, a proteoglycan, a lectin, an indigestive polysaccharide or the like. The daily dose of the preparation as an anticancer agent is usually 100-20,000 mg, especially 1,000-10,000 mg per adult as the amount of the orally administered active ingredient.

LEGAL STATUS

[Date of request for examination] 04.11.2003

[Date of sending the examiner's decision of rejection]

[Kind of final disposal of application other than withdrawal the examiner's decision of rejection or application converted registration]

[Date of final disposal for application] 04.07.2006

[Patent number]

[Date of registration]

[Number of appeal against examiner's decision of rejection]

[Date of requesting appeal against examiner's decision of rejection]

[Date of extinction of right]

* NOTICES *

JPO and NCIP are not responsible for any damages caused by the use of this translation.

- 1.This document has been translated by computer. So the translation may not reflect the original precisely.
- 2.**** shows the word which can not be translated.
- 3.In the drawings, any words are not translated.

CLAIMS

[Claim(s)]

[Claim 1] Pharmaceutical preparation for ingestions which the antitumor effectiveness characterized by prescribing interleukin 12 inductor for the patient by taking orally can expect.

[Claim 2] Pharmaceutical preparation for ingestions according to claim 1 whose interleukin 12 inductor is a mushroom mycelium origin component.

[Translation done.]